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AUTHOR Portes, Pedro R.; Zady, Madelon F.

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ABSTRACT

Following a previous study's finding that demographic and psychosocial factors mediated the effect of ethnicity in predicting standardized reading performance, this study examined the effects of these predictors on immigrant adolescents' reading achievement. It investigated the extent to which Asian-origin and Spanish-speaking groups differed in reading achievement after controlling for key variables. Data came from the Youth Adaptation and Growth Questionnaire. Over 5,000 second-generation students from 77 nationalities and 42 schools completed surveys that examined demographic, psycho-cultural, and attitudinal factors; socioeconomic status; standardized test performance; English proficiency; peer relationships; number of hours spent on homework and television; and father's presence at home. Results indicated that various predictors were unique for each group. For Asian-origin students, achievement motivation was most significant. The more Asian students identified with their native culture, the lower their reading scores. For the Spanish-speaking groups, the more they identified with American culture, the lower the scores in reading. Their report of direct discrimination also related to lower performance. Their perception that things were not better now from the way they were 5 years ago also predicted lower reading performance, as did being classified as limited in English proficiency. (Contains 42 references.) (SM)

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Determinants of Reading Achievement of Immigrant Adolescents: The Role of Demographic and Psycho-cultural Factors in School Adaptation

Pedro R. Portes

Madelon F. Zady

School of Education

University of Louisville

Paper presented at the American Educational Research Association Meeting
Seattle, April 10-14, 2001

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A variety of demographic and psycho-social factors were found to mediate the effect of ethnicity, in predicting standardized reading performance. In the current study, the effects of these predictors on reading achievement, in an immigrant sample, were examined.

Statistically significant differences in the reading achievement between aggregated Asian-origin and aggregated Spanish-speaking groups were found. Regression analyses, with reading achievement as the dependent variable, were conducted separately to determine more precisely the nature of predictor variables in these two groups. A significant amount of the variance was explained in the Spanish-speaking sample (36%) and the Asian sample (41%). In general, although many of the same variables predicted reading achievement, many tended to do so to differing degrees while others were specific to the immigrant group in question thus reinforcing the need to examine the context of education and process of cultural adaptation more closely.

The role of specific demographic and psycho-cultural factors related to ethnic group differences in academic achievement has geen the topic of a growing literature. These factors may be manifested through a variety of socio-psychological characteristics of students and their communities, as well as a variety of historically determined contextual variables (Neisser, 1986; Trueba, 1988). Many aspects seem to interact in determining the compatibility between students' native culture and that of the dominant groups' with respect to adaptation to school. Noted among these are parent or student beliefs, attitudes, goals, routines, family, and societal factors (Tharp, 1989; Whiting, 1976). The social capital available to students, their cultural origin and history, and the socio-educational context that serves them, also appear as critical factors, which along with social economic status (SES) and individual agency, are linked with group differences in school outcomes.

The educational achievement of immigrants is of particular interest to social science and educational policy concerned with the issue of inequality among U.S. mainstream, and non-immigrant groups. Why these children are situated at risk for educational and social disadvantages, despite sensitive school-based or community interventions, remains a critical problem in education. On the other hand, children from some cultures appear to have certain advantages or protective factors in the educational marketplace (see for example Moore & Stanley, 1987). In considering ethnic differences in school achievement, why such a contrast exists is puzzling. Various explanations for today's disproportionate rates of drop outs, grade retentions and lower achievement among specific ethnic groups may be found in the literature (Council of the Great City Schools, 1995; Foley, 1991; Fulgini, 1997; Steinberg, Dornsbuch and Brown, 1992). These explanations or hypotheses are generally subsumed under three main categories: the culture of origin, the way schooling is structured, and their interaction (Mehan, 1992; Oakes, 1990; Ogbu, 1989). A fuller description of these accounts may be found elsewhere (Portes, 1996, 1999).

Ethnicity is often associated with differences in SES, educational performance, and a variety of psycho-social outcomes. Yet, two types of cultural differences merit distinction: those

concerning national subcultures and those concerning immigrant and second generation immigrants with respect to educational and occupational status.

Current Conceptions of Group Differences in Achievement

Considerable variation can be found among groups of students from historically disadvantaged minority groups compared to established Euro-American students. Explanations for the low achievement of the former are often centered on schooling practices. Labels are often used in ways that are not always in the interest of their bearers, leading to class and ethnic separation in opportunities to learn and limited educational futures (Oakes, 1990).

Other models have been developed to account for group differences in school adaptation that are based on students' culture (Trueba, 1988). For example, Native, African, and Mexican-Americans, share a history of oppression and cultural subordination rooted in colonialism that has been institutionalized. They may be regarded as colonized or as involuntary minorities (IVM) (Ogbu, 1991). Immigrant groups, on the other hand, adapt differently although they may also be poor, encounter language difficulties and suffer discrimination. The folk psychology of immigrants (their interpretation concerning unfavorable conditions of the host society) along with their self-regard, values, and motives, may differ from those of domestic, impoverished minorities. This may lead to what has been popularly characterized as the "immigrant edge." The longevity of this immigrant edge of some groups' students may well disappear in time but remains an empirical question. The conditions that are necessary and sufficient to produce or eliminate this edge constitute an important research question. More research is needed in linking socialization patterns and contextual factors with respect to the development of school aptitudes.

Variations in achievement motivation regarding school and occupational success, as well as differences in communication , perceived and felt discrimination, and self-esteem, may be co-constructed as part of the cultural adaptation process. With respect to immigrant students, the extent to which students adapt in ways akin to those majority or minority groups are not fully understood. Only a few disparate studies can be found in an area that considers the educational achievement of children from diverse cultures (see Gibson and Ogbu, 1991; Matute-Bianchi, 1986; Portes & MacLeod, 1996; Rumbaut, 1994; Suarez-Orozco, 1989; Wang & Goldschmidt,

1999). Beliefs such as learned helplessness, effort optimism (Ogbu, 1992), self-esteem, achievement motivation, or study and TV habits, may be related to different culture-based models of success. Students from these groups tended to be more optimistic about succeeding in U.S. society (Suarez-Orozco, 1989) and to enjoy greater family support than involuntary group students. However, while some find the above evidence as supportive of a static topology model, others point to their social capital and mediating factors concerning the social context in which these groups are received, which might provide a more succinct explanation (Tharp, 1989; Trueba, 1988). The political and economic situation of a host country changes over time, often making the adaptation to school more difficult for immigrants. The influence of different contexts of reception, of secular, economic and political trends, also might require attention in this regard. A theoretical cultural-historical (CH) approach would focus on differences to access key mediational tools and activities such as language, pre-school, after-school programs and such.

It is not clear whether or how the above factors relate to academic achievement, particularly when larger and more diverse groups are considered. The role of parental SES, ethnicity, self-concept, achievement motivation, and other variables also need to be considered in explaining voluntary versus involuntary group achievement differences. The extent to which the above factors remain independent of what is regarded as the effect of ethnicity remains unclear. The study of immigrant group differences in educational outcomes thus would seem to provide fuel for theory development and contribute to educational policy and practice.

A prior study with this data set examined the relative importance of such variables on the academic achievement of these immigrant adolescents (Portes, 1999) as defined by the average of reading and math scores termed total achievement. Generally the findings supported the view that, while demographic variables such as SES and gender among others do account for considerable variation in academic achievement, psycho-cultural and ethnicity variables were also important predictors that explained the effects of demographic factors to a considerable extent.

Reading Achievement

In the current study, the effects of the above predictors on reading achievement are examined directly in order to better understand literacy development in an immigrant sample. There is a growing literature concerning the pivotal role of reading skills in science, mathematics and other content areas. In mainstream groups, the antecedents of reading include early-age reading and the language literacy environments of the home (Quatroche, 1999; Siegel, 1990). Children who have access to "better" cognitive supports or who live in a "literacy environment" (Sulzby, 1994) develop more capital in school (Snow, Burns & Griffin, 1998. Vocabulary size is also predictive (Hart & Risley, 1995). Social and emotional benefits surrounding literacy events in the home appear of import (Lancy & Burgin, 1992). Graves and Slater (1987) propose that the SES - reading achievement relationship is mediated through the above features.

Predictors of reading and English literacy in immigrant populations include higher cognitive ability in the native language (Willig, 1985; Wong-Fillmore & Valadez, 1986). Literacy is seen to lead to overall academic achievement (Bankston & Zhou, 1995).

Among immigrant students, there is some indication that literacy also leads to increased achievement in mathematics (Wang & Goldschmidt, 1999), as immigrant students had higher achievement levels in ESL math classes. Generally, however, the predictors of mathematics achievement are derived from studies of ACT, TIMSS (Third International Mathematics and Science Study) and Census Bureau data. Such predictors are SES (Signer, 1996), parental education and TV viewing (Beaton, 1996). Gender and ethnicity differences were reported early on (Creswell & Exezidis, 1981; Stewart, 1981) and continue in their importance (Signer, 1996). The relation between self-efficacy and mathematics achievement is significant, but like self-esteem, causality can be disputed (Byrne, 1998). In studying minorities, Peng (1995) noted the SES, parental education, home literacy, parental unemployment and inner city school connection with mathematics achievement. In sum, there is some evidence that the predictors of achievement may vary depending on content area yet reading appears instrumental to other areas of achievement.

Conceptual Methodological Issues

There is little evidence to presume that immigrant youth are homogeneous with respect to school adaptation and to factors such as those noted above. Many of the alleged group

differences found in the literature with regard to minority achievement come from studies that may or may not include immigrants, and often immigrant studies are based on small samples. The data are rarely comparable across cultural backgrounds. Few studies allow for inferences concerning whether the folk psychology of minority immigrant and non-immigrant youths is different or the extent to which within-immigrant-group differences are significant.

The extent to which membership in a culture remains significant after other potentially mediating factors are taken into consideration remains an essential question in the field. The present data are limited to several groups of immigrant students (Latin American and Asian-origin) that provide an important baseline for contrasts with the extant data on mainstream and other domestic minority populations. (Of the comparative studies that exist currently in the literature, few evaluate contextual and psycho-social characteristics. Many are based on the data from NAEP and TIMSS which do not control for important variables. The survey used for the current study focuses on contextual and psycho-cultural features.)

The following research questions are of particular interest in this exploratory study:

What are the main predictors of reading achievement with respect to immigrant youth as a whole after controlling for SES, gender, and English language proficiency and grade level?

To what extent do immigrant Asian-origin and Spanish-speaking groups differ in reading achievement after key variables are controlled?

If differences are found between these two pan-ethnic labels or categories, how are specific ethnic groups different in reading achievement and its predictors?

In other words, is the net effect of ethno-culture significant beyond psycho-cultural and control variables in this population in predicting reading achievement?

Hypotheses

Given the segmented, cultural context adaptation model proposed in an earlier report (Portes, 1999), it is predicted that amongst a "voluntary" or immigrant sample, significant group

differences would be found in reading between the two broad pan-ethnic groups examined as well as among specific ethno-cultural groups. Secondly, it is predicted that most of the variance in achievement can explained by psycho-cultural factors after demographic and control variables are controlled.

Method

The data for this study stem from the Youth Adaptation and Growth Questionnaire developed for the Second Generation Project in Miami and San Diego (Portes & MacLeod, 1996). In Rumbaut (1994), a full description of the design of the study, sampling, and procedures can be found. A total of 5,267 second-generation students from various groups were interviewed. According to the author, second generation status for children was defined as living in this country (U.S.) for at least five years or being the child of at least one immigrant parent. By limiting the sample to eighth and ninth graders, the bias created by school dropouts in the higher school years was reduced. This is a time when most children are still in school. One-half of the sample participants were born outside the U.S. before age 12. The other half was U.S. born. The sample was also evenly distributed by grade and gender.

Children from 77 different nationalities and 42 different schools in Dade County (Miami), Broward County (Ft. Lauderdale) (N>2800) and the San Diego metropolitan area (N>2400) were interviewed using the survey tool. The total participants in the study were 5,264. The study accessed school records thus allowing researchers to match the characteristics of the respondents (nationality, sex, age, parental education, length of U.S. residents and aspirations) with their school performance.

Sample Selection

Students were foreign-born or had at least one foreign-born parent. A brief initial survey of all eighth and ninth graders in the school districts indicated above was conducted in order to locate participants. Parental consent was obtained for all eligible participants. The return rate was 67% of the South Florida group and 75% for the San Diego group (Rumbaut, 1994). The

nationalities represented included: Cubans (in public school and in private school), Haitian, Latin American , Jamaican, Mexican, Filipino, South East Asian, Chinese, Japanese, Korean, Indian, Asian/Middle Eastern, and other Asian. Only the first seven groups had numbers that were sufficient to allow for the multivariate analyses that follow.

General/Control Measures

Data on the respondents' demographic characteristics were provided by the survey: nativity and citizenship of both respondents and parents, family size and structure, socioeconomic status including parents' education level and occupation, and home ownership.

Control variables included: grade, age, gender, English language proficiency (EPI), inner city school, parental SES and length of stay in U. S. Since those in the earlier grade were more recent immigrants and generally were less bilingual, grade could be seen to index cultural adaptation indirectly.

Psycho-cultural Measures

A collection of attitudinal and other psycho-cultural variables were analyzed and subjected to data reduction schemes. As defined in an earlier study (Rumbaut, 1994), measures of depression, familialism and self-esteem were included. A familialism scale assessed the strength of family bonds (FAMSCA, alpha=.56). Self-esteem from a ten-item Rosenberg scale (Rosenberg, 1979) (ROSEN, alpha=.81), and depressive symptoms from a four-item subscale from the Center for Epidemiological Studies-Depression (CES-D, alpha=.74) were used and have been found in the past to be predictive of major depression among adolescents (Vega and Rumbaut, 1991).

Measures Based on Factor Analysis

From selected interview items, several measures were developed through factor analyses. One analysis yielded a scale measuring perceived discrimination (alpha=.54), another indexed

felt discrimination (alpha.98), and a third factor analysis represented an achievement motivation scale (alpha=.69).

Variables dealing with adaptation to the American culture and to the ethnic culture were evaluated. A student's cultural development, for example, could be revealed through choice of language in daily routines, his/her parent's own cultural identification and attitudes and perceptions concerning American culture. To examine these constructs of cultural identity, a factor analysis of twelve such variables was conducted. A bipolar factor was hypothesized that would range from preferences for American to natal ways. A two factor solution was found to be more tenable, accounting for 49% of the variance. The first factor served to index the respondent's ethnic identification and adaptation. It was related to the "Pull" of the native culture on the individual and the extent to which the respondent's natal language was maintained. The factor also served to measure the respondent's native language proficiency and the parents' use of the native language. The second factor contained variables related to adaptation to the American culture. This factor served to examine the parents' cultural adaptations and the respondent's assimilation into the mainstream of America. The first factor was dubbed "Ethnic Pull" (alpha=.80), and the second factor, "American Pull" (alpha=.66), was so named to reflect adaptation to the American way of life. These factor scores were used in subsequent statistical analyses.

Other Predictor Variables

Other variables were considered. These included a variable called SES that reflected the family's socio-economic status as well as a variable that reflected economic situation five years prior. The number of hours spent daily on homework and television. Respondent's peer relationships were examined as to the total number of friends and the number of friends of similar ethnic background. Other variables were included in the subsequent analyses: limited English proficiency (LEP), performance on standardized achievement tests in reading and mathematics, and father presence in the home.

Results

The initial findings of this study resulted from testing for potential overall differences in reading achievement between aggregated Asian-origin and aggregated Spanish-speaking groups by gender. (Because the private Cuban group was all male, it was excluded from this analysis.) A simple ANOVA shows that after controlling for gender, which was significant ($F=14.0$, df, 1,3286, $p<.00$) the two aggregated pan ethnic groups differed significantly in achievement ($F=59.0$, df, 1,3286, $p< .000$). These results can be found in Table 1. The Asian group was significantly above the Spanish-speaking groups in reading at the aggregated level. The overall F-ratios indicate group differences in reading achievement are explained by gender and more strongly by ethnicity when only these two factors are considered. The ethnic group by gender interaction was not significant.

While girls tended to score higher than their male counterparts in reading achievement in general, there were some exceptions depending on ethnic group membership. In the Cambodian group, males scored higher than females. The (male only) private school Cuban group scored highest in reading followed by Filipino students. Public school Cubans, Vietnamese and Colombians were in the average range while Laotian, Cambodian and Mexican students scored lowest in reading (see Table 2).

Regression Results

The above overall analytic strategy precludes examining the role of other predictor variables in the aggregated the two pan-ethnic samples. Regressions analyses were conducted separately to determine more precisely the nature of gender and other predictor variables in these two groups. In addressing the central questions of the study, specific mediators of ethno-cultural group differences in reading were considered

In addition to considering these latter ethno-cultural predictors, the regression model first controlled for the block of demographic factors before considering a second block of psycho-cultural variables for each of the two aggregated groups. Reading achievement was the dependent variable. Thus reading standardized scores were accounted first by demographic ($p = .000$ for the model) and then by psycho-cultural factors ($p = .000$ for the model). The results showed:

- Overall, 36% of the variance was explained mainly by the 16 significant variables ($p \leq .05$) shown in the model (Table 3) for the Spanish-speaking sample.

- For the Asian group model, 12 significant predictors ($p \leq .05$) were found to account for most of the 41% of the variance in reading.

- As table 3 shows, for the control block, English proficiency was the most powerful predictor as expected, followed by parental SES. Gender differences were significant in the Spanish-speaking group only.

- Inner city schooling was another powerful control variable, particularly for the Asian-origin group. Length of stay in the U.S. was twice as important for the Asian group.

- After controlling for the above factors, Familialism, and Perceived Discrimination were predictive of lower scores for both groups.

- Self esteem was a positive predictor of reading achievement for both groups.

- Time spent on homework was significant for both groups while TV viewing time had a minor, insignificant negative effect.
- The more close friends reported by Spanish-Speakers, the lower the achievement in reading although the more immigrant friends, the higher the scores for that group only.
- Being classified as limited in English proficiency had a negative effect for Spanish-speakers but a positive effect for Asian students.
- The higher the perception of discrimination in the U.S. the lower the reading achievement, particularly for Asian students. Direct or felt experiences of discrimination reported had a negative impact on Spanish- speakers' reading achievement.
- Achievement motivation was significant for Asian-origin students only.
- In terms of cultural adaptation, the more oriented students were in retaining the native language and customs, the lower the reading scores particularly for Asian-origin students.
- However, full identification to American culture was also predictive of lower reading scores for Spanish-speakers.

In sum, a number of predictors were unique for each group. For the Asian-origin samples, achievement motivation was most significant. The more identified students were with their native culture, the lower the reading scores. For the Spanish-speaking groups, the more identified they were with American culture, the lower the scores in reading. Their report of direct discrimination was also associated with lower performance. Their perception that things now were not better than five years before also was predictive of lower performance in reading, as was the case for being classified as limited in English proficiency.

Discussion

The present study sheds new light on many of the assumptions found in the literature concerning cultural differences within and between groups. Within the immigrant student population, there are various interpretations in the literature regarding the role of class, context

and language in case or ethnographic studies, as well as others with more limited samples. Oftentimes, this population is regarded as homogeneous relative to mainstream and involuntary groups (Portes, 1999; Ogbu, 1992). The role of ethnic identity, with respect to acculturation and other affective factors, has been difficult to separate from other variables that generally remain unmeasured or not controlled. The analyses presented here allow for several conjectures about the role of psycho-cultural influences after major differences due to static factors are controlled and discerning the prevailing influence of ethno-cultural membership. In general, although many of the same variables predicted reading achievement as an index of literacy acquisition, many tended to do so to differing degrees while others were specific to the group in question. Hence the first hypothesis seems supported.

After class, gender, grade level/age, English proficiency, SES, innercity school andlenth of stay in U.S accounted for, a number of interesting measures were found to explain reading test performance. The latter may be regarded as indexing the literacy level and potential that these students have in adapting to mainstream culture, and perhaps indirectly, their efficacy in dealing with the host culture.

The results suggest that two psycho-cultural variables were significant in predicting reading achievement. Family-centeredness (Familialism) is an orientation that appears to denote a certain dependency which is predictive of lower achievement. Students, who are so identified with their families and see their future as centering on being close to the family, tend to have lower achievement, while those who report willingness to move away when they are older have higher achievement. This finding is of particular importance for this population since the process of individuation, development of cultural values and beliefs are to be contextualized with both adolescence and a time of cultural adaptation simultaneously. Self-esteem, as expected, had a modest but significant effect on reading performance. High self-esteem is likely to be an index of overall psycho-cultural adaptation.

On the other hand, reading performance was negatively influenced by perceptions and experiences of discrimination. Again these two factors represent an added burden or psycho-cultural agenda for immigrant as well minority students to deal with in general. It is one that emerges during this time and can influence the type of adaptation of these adolescents will make. While these factors contribute independently to lower achievement, the larger picture seems one where they are interconnected as part of an overall pattern of adaptation. For the Asian groups, in particular, the ethnic pull factor that reflects maintenance of the native language and general family support of the culture of origin had a negative influence on reading achievement. The latter factor captures some of the added stresses adolescents must experience as they attempt to negotiate their identities amongst family, peers and two cultures. Similarly, the American "pull" factor for the Spanish-speaking cultures had a negative influence on reading achievement. This factor also indexes adaptation but more towards American culture. In both cases, regardless of the direction, this added task of cultural adaptation that reflects language practices and parents' own adaptation seems to count in ways that, relative to the mainstream culture, detract from students' focus on what contributes to reading achievement. These findings lend support to the second hypothesis.

In spite of the fact that this sample was bilingual for the most part, and that English proficiency differences were controlled, being classified as Limited English Proficiency had a negative effect on achievement for one group only. For Asian students, this designation was associated with higher reading scores, thus suggesting the need to examine the context of education more closely. It is possible that such students' literacy development benefits from the designation in one context more than in another where it may limit comprehension and related skills required to do well on a reading test.

Overall, it appears that reading achievement is predicted by a number of factors that are interrelated in both practices and affect, and that reflect differences in students' adaptation. Our data on these same students' math achievement (Portes & Zady, 2001) suggest that many of these

factors above are not as significant in that domain. Hence, one final conclusion is that reading achievement is particularly sensitive to a host of underlying cultural and family adaptation processes. What is required to do well in this content area is much less culture-free than other areas such as math or computer literacy although reading is still required for these subjects. What is required for success in reading appears to involve a complex of school and outside factors that for immigrant students, include cultural adaptation processes.

A number of limitations are important to note concerning this study. While one of the strengths of the study lies in being able to unpack minority labels regarding culture (i.e., Asian-origin vs. Latino) by examining particular groups, it should be noted that the Filipino group is unique in its heritage of Spanish, American and native culture which makes its inclusion as an "Asian" group questionable. In the case of the private school Cubans, in spite of the statistical control of parental SES in the control block, it may be that other class and historical factors distinguish this group from other immigrant groups. This group poses a slight problem due to the missing female cell and also includes with it the effect of private schooling and religious denomination. Also, some of the Asian groups were small and this compromises generalizability.

The controlled factors influence achievement in the expected direction, after sample characteristics were adjusted by the variable grade in order to make comparisons more accurate[1]. English language proficiency, a major index of literacy in general, accounted for about twice as much variance as parental SES, and when controlled, this allowed the samples to be more comparable in studying other factors. However, important group differences remain in these areas. Another potential bias was controlled in this immigrant sample by taking into account differences in schools as to inner city location. As a result, greater confidence was placed in the role of psycho-cultural factors that, in part, are generally included in conceptions about

[1] Some of these students had to repeat a grade due to language and prior school experiences. As a result, those in the 8th grade tended to achieve at a different level than those in 9th systematically. Controlling for this factor allows to explore the other variables after reading performance is adjusted for this grade bias.

particular ethnic groups. It may be that other variables besides those in this study would be required to unpack the above differences.

In conclusion, the present research presents essentially a baseline for various factors in the literature regarding the links between school and cultural adaptation of immigrant students. As argued in a related report (Portes, 1999) the assimilation of these second generation students is not linear or stage-like but depends on different constellations of context and inter-cultural factors. Our interpretations remain guarded in recognition that these data provide essentially a snapshot of a much longer and complex process of adaptation.

The most impressive findings of the study concern the fact that differences which are often attributed to ethnicity, culture or group membership, are dependent to a large extent on both psycho-cultural, context/control variables. Hence, what appear as large group differences in achievement in one content area often disappear or change considerably. Finally, it may be that the traditional question of which group achieves better in school may be the wrong question. Rather, questions concerning the interplay and role that various factors play for different groups in different contexts appear more useful. A preferable analytic strategy seems to extend the present research toward the study of specific ethno-cultural groups and contexts.

References

Bankston, C. L., III & Zhou, M. (1995). Effects of minority-language literacy on the academic achievement of Vietnamese youths in New Orleans. Sociology of Education, 68, 1-17.

Beaton, A. E. (1996). Mathematics achievement in the middle school years. IEA's Third International Mathematics and Science Study. ERIC Document ED406419.

Byrne, B. M. (1998). Testing for causal predominance between academic self-concept and academic achievement: A developmental perspective. ERIC Document ED423271.

Council of the Great City Schools (1995). Immigrant and limited English proficient youth: Issues in the Great City Schools. Urban Indicator, 3(1).

Creswell, J. L. & Exezidis, R. H. (1981). Sex and ethnic differences in mathematics achievement of Black and Mexican-American adolescents.

Foley, D. (1991). Reconsidering anthropological explanations of ethnic school failure. Anthropology and Education Quarterly, 22(1), 60-86.

Fulgini, A. J. (1997). The academic achievement of adolescents from immigrant families: The roles of family background, attitudes, and behavior. Child Development, 68(2), 351-63.

Gibson, M. a. & Ogbu, J. U. (Eds.) (1991). Minority status and schooling: Acomparative study on immigrants and involuntary minorities. New York: Garland.

Graves, M. F. & Slater, W. H. (1987). Development of reading vocabularies in rural disadvantaged students, inter-city disadvantaged students and middle-class suburban students. Paper presented at AERA, April 1987, Washington, DC.

Hart, B. & Risley, T. R. (1995). Meaningful differences in theeveryday experience of young American children. Baltimore, MD: Paul H. Brookes

Hernandez, D. J. & charney, E. (Eds.) (1998). The Health and well-being of children in immigrant families. Washington, DC: National Academy Press.

Huang, G. g. (2000). Mathematics achievement by immigrant children: a comparison of five English-speaking countries. Educational Polity Analysis Arechives, 8(25).

Lancy, D.F. & Bergin, C. (1992). The role of parents in supporting beginning reading. Paper presented at the annual meeting of the American Research Association, San Francisco, CA, April 20.

Matute-Bianchi, M. E. (1986). Ethnic identities and patterns of school success and failure among Mexican-descent and Japanese-American students in a California high school: An ethnographic analysis. American Journal of Education, 95, 233-55.

Mehan, H. (1992). Understanding inequality in schools: The contribution of interpretive studies. Sociology of Education, 65, 1-20.

Moore, S. D. & Stanley, J. (1987). Family background of young Asian Americans who reason extremely well mathematically. ED282367.

Neisser, U. (1986). The school achievement of minority children: New perspectives. Hillsdale, NJ: Erlbaum.

Oakes, J. (1990). Multiplying inequalities: The effects of race, social class, and tracking on opportunities to learn math and science. Santa Monica, CA: Rand.

Ogbu, J. U. (1989). The individual in collective adaptation: a framework for focusing on academic underperformance and dropping out among involuntary minorities. In L. Weis, E. Farraf, and H. Petrie (Eds.), Issues, dilemmas, and solutions (pp. 181-204), Albany: State University of New York Press.

Ogbu, J. U. (1991). Low school performance as a adaptation: the case of Blacks in Stockton, California. In M. a. Gibson & J. U. Ogbu (Eds.), Minority status andschooling: A comparative study of immigrants and involuntary minorities (pp. 249-285). New York: Garland.

Ogbu, J. U. (1992). Understanding cultural diversity and learning. Educational Researcher, 21(8), 5-14.

Peng, S.S. & Wright, D. A. (1994). Explanation of academic achievement of Asian American students. The Journal of Educational Research, 87, 346-52.

Portes, A. & MacLeod, D. (1996). Educational progress of children of immigrants: The roles of class, ethnicity, and school context. Sociology of Education, 69, 255-75.

Portes, P. R. (1996). Ethnicity and culture in education and psychology. In D. Berliner & R. Calfee, (Eds.) The handbook of educational psychology (pp. 331-357). New York, NY: McMillan Publishing.

Portes, P.R. (1999). Social and psychological factors in academic achievement of children of immigrants: A cultural history puzzle. American Educational Research Journal, 36, 489-507.

Quatroche, D. J. (2000). Helping the underachiever in reading. ***ERIC Review, 7, 25-6.***

Rosenberg, M. (1979). Conceiving the self. New York : Basic Books.

Rumbaut, R. G. (1994). The crucible within: Ethnic identity, self-esteem, and segregated assimilation among children of immigrants. International Migration Review, 28(4), 748-794.

Siegel, D. F. (1990). The literacy press: A process model for reading development. The Journal of Educational Research, 83, 336-47.

Signer, B., Beaudry, J. S. & Bauer, E. (1995). A study of the interrelated effects of ethnicty, gender, and school community SES on mathematics attitudes of students enrolled low level high school mathematics courses. American Secondary Education, 23, 23-9.

Snow, C. E., Burns, M. S. & Griffin, P. (1998). Preventing reading difficulties in young children. Washington, DC: National Academy Press.

Steinberg, L., Dornbusch, S. M., & Brown, B. B. (1992). Ethnic differences in adolescent achievement: an ecological Perspective. American Psychologist, 47, 723-729.

Stewart, C. (1981). Sex differences in mathematics. ERIC Document 212466.

Suarez-Orozco, M. M. (1989). Central American refugees and U. S. highschools: A psychosocial study of motivation and achievement. Stanford, CA: Stanford University Press.

Sulzby, E. (1994). Children's emergent reading of favorite storybooks: A developmental study. In R. R. Ruddell, M.. R. Ruddell, & H. Singer (Eds.) Theoretical models and processes of reading, 4th ed. (Pp. 244-280). Newark, DE: International Reading Association.

Tharp, R. B. (1989). Psychocultural variables and constants: Effects on teaching and learning in schools. American Psychologist, 44, 349-359.

Treuba, H. T. (1988). Culturally based explanations of minority students' academic achievement. Anthropology and Education Quarterly, 19, 270-287.

Vega, William A. And Ruben G. Rumbaut (1991). Ethnic minorities and mental health. Annual Review of Sociology 17: 351-383.

Wang, J. & Goldschmidt, P. (1999). Opportunity to learn, language proficiency, and immigrant status effects on mathematics achievement. The Journal of Educational Research,93(2), 101-111.

Whiting, B. (1976). The problem of the packaged variable. In K. Riegel & Meacham (Eds.), The developing individual in a changing world: Historical and cultural issues, 1. Netherlands: Mouton.

Willig, A. (1985). A meta-analysis of selected studies on the effectiveness of bilingual education. Review of Educational Research, 55, 269-317.

Wong-Fillmore, L. & Valadez, C. (1986). Teaching bilingual learners. In M. Wittrock (Ed.), Handbook on research on teaching, (pp. 648-685). Washington, DC: AERA.

Table 1

ANOVA Tests of Between-Subjects Effects

for Asian-Origin and Spanish Speaking Students

Source	F	Significance
Gender	14.0	.000
Ethnicity	59.0	.000
Gender*Ethnicity	.840	.137

Df = 1,3286

Table 2

Reading Scores by Ethnicty and Gender

	Group PRICUB			PUBCUB			NICARAGUAN			MEXICAN			COLOMBIAN		
Variable	Mean	N	SD	Mean	N	SD	Mean	N	SD	Mean	N	SD	Mean	N	SD
Reading															
Female				075	500	49	-.081	165	.51	-.199	295	61	134	101	55
Male	617	103	42	057	409	.57	-.093	144	55	-.240	318	.62	-.006	90	.54
Total				067	909	52	-.086	309	.53	-.220	613	.62	068	191	55

	Group FILIPINO			VIETNAMESE			LAOTIAN			CAMBODIAN			TOTAL	
Variable	Mean	N	SD	Mean	N	SD	Mean	N	SD	Mean	N	SD	Mean	SD
Reading														
Female	384	373	61	123	150	72	-.230	65	62	-.600	50	37	073	.62
Male	256	361	58	-.039	160	75	-.381	68	.56	-.466	38	.54	038	.64
Total	321	734	60	039	310	.74	-.307	133	59	-.542	88	.46	056	.63

Note PRICUB = Cubans in private school PUBCUB = Cubans in public school

Table 3

Regressions for Reading Achievement

Predictor	Spanish Speakers		Asian Origin	
Block 1 Demographic/Control	Beta	Sig	Beta	Sig
Grade	209	000	083	015
Age	- 093	001	- 058	104
English Proficiency	211	000	218	000
Socio-economic Status	126	000	100	002
Gender	049	035	- 013	653
Inner City School	- 057	019	- 165	000
Length of Stay in U S	049	062	080	016
Block 2 Psychocultural				
Economic Situation 5 Yrs Prior	- 067	003	- 011	687
Homework Time	070	002	062	027
Television Time	- 037	092	- 043	111
Number of Close Friends	- 072	001	- 044	105
Number of Friends from Abroad	049	030	- 013	635
Familialism	- 128	003	- 131	000
Limited English Proficient	- 102	000	060	039
Perceived Discrimination	- 105	000	- 164	000
Felt Discrimination	- 085	000	- 015	598
Achievement Motivation	045	073	104	000
Ethnic Pull Factor	- 047	088	- 112	002
American Pull Factor	- 055	037	- 015	619
Father Presence	020	372	- 001	960
Self-Esteem Scale	134	000	099	001
	R square = 366		R square = 414	